APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/520,065	03/07/2000	Helge Simonsen	SUN-P6511	9878

7590   10/23/2003

Daniel Vaughan
Park Vaughan & Fleming LLP
Suite 310
702 Marshall Street
Redwood City, CA 94063

EXAMINER
NGUYEN, STEVEN H D

ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 10/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 July 2003* .

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-3, 5-11, 13-18 and 20* is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☒ Claim(s) *4, 12 and 19* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4)☐ Interview Summary (PTO-413) Paper No(s). _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: .

DETAILED ACTION

Response to Amendment

1.   This action is in response to the amendment filed on 7/14/03. Claims 1-20 are pending in

the application.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-3, 5-11, 13-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Weber (USP 6185620) in view of Roach (USP 6304910).

Weber discloses (Figs 1-23 and col. 1, lines 15 to col. 20, lines 12 which discloses a

controller for transmitting and receiving the data frames from host and network wherein the

controller which includes a micro coded engine for coupling to the context memory for dynamic

allocation the memory for the receiving and transmitting frame; performing a flow control, after

forwarding the frame the protocol engine, data mover, receiver, transmitter updated the context

manager in order to free up the memory and generating ack frame to notify the sender and

perform CRC) a general computer network controller, preferably operative in a system area

network, said controller including a data buffer handling one or more payloads which includes a

plurality of read and write ports in order to performing a parallel task (Fig 8, Ref 870) and a de-

dicated, programmable micro sequencer tightly coupled to the context block wherein a fully

associate context block configured to hold a number of last recently used contexts to provide a

dynamic resource allocation scheme reflecting run time situations (Fig 8, Ref 876-878) and

configured to control the context block and control flow and processing multiple types of

network packets and protocols, wherein the micro sequencer is packet format independent and

network independent wherein said contexts being updated by said micro sequencer (Fig 8, Ref

876), by an inbound scheduler (Fig 8, Ref 874) and by a network protocol engine (Fig 802); a

scalable memory array configured as a table for Inbound address mapping of registered memory

and access protection, and as a means for keeping context information about all active channels

(Fig 8, Ref 874 as claim 2); the fully associative context block couples said inbound scheduler

and said network protocol engine, thereby facilitating an ability of said network controller to

pipeline tasks and execute in parallel (Fig 8, Context manager 878, 877 are connected between

receiver "inbound scheduler" and protocol engine 802 as claim 3) and the target and initiator

exchanges the message such as ack frame to notify the sender (Col 12, lines 19-27) and context

block issued for outbound RDMA (credit manager; see col. 9, lines 30-42). However, Weber

does not discloses a programmable micro coded and micro sequencer for controlling network

protocol engine for performing link injection control based on the feed back from link layer as

well as intervention from an operation system and for scheduling the packets and inbound

schedule for decoding, scheduler and invoke the run task or allocate new task for received

packet, memory mapping, descriptor inserted into queue by a user application and task received

from context manager. In the same field of endeavor, Roach discloses (Figs 1-9 and col. 1, lines

5 to col. 11, lines 65 which discloses a controller including a programmable sequencer for

controlling the flow and dynamic allocation the memory from the memory and generating a

descriptor for storing the receiving and transmitting frame and performing CRC check on the

frame and generating an ack frame) a micro sequencer is operative to control said network

protocol engine which in its turn is operative to perform link injection control, based on feedback

from a link layer as well as intervention from an operative system, said network protocol engine

further being operative to schedule packets to the network (Fig 5, the programmable sequencer is

used to control protocol engine for scheduling the packets for transmitting via network) and said

inbound scheduler is operative to decode, schedule and invoke running tasks or allocate new

tasks, based on i) packets received from the network, ii) memory mapped operation received

from a bus attachment module, iii) descriptors inserted in work queue fifos by a user application,

and iv) tasks received from said context block (Fig 2, Ref FC-1) and message cyclic redundancy

check as an address to a remote completion queue are attached by a said micro sequencer, to a

last packet in a message to be sent from a sender, to a receiver, whereby on reception of said

packet at said receiver and checking for data integrity for the whole message by a target micro

sequencer, "receive complete" is signaled directly from said target micro sequencer in the remote

process completion queue, and simultaneously a response is made back to the sender, which will

then signal "send complete" and status directly to a local process (Col. 7, lines 32 to col. 8, lines

13) and detecting page boundary and word count (Col. 3, lines 18-42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention was made to apply a programmable sequencer as disclosed by Roach's controller into

Weber's controller. The motivation would have been to allow the controller to be upgrade in the

future.

Allowable Subject Matter

4.   Claims 4, 12 and 19 are objected to as being dependent upon a rejected base claim, but

would be allowable if rewritten in independent form including all of the limitations of the base

claim and any intervening claims.

Response to Arguments

5.   Applicant should submit an argument under the heading "Remarks" pointing out

disagreements with the examiner's contentions. Applicant must also discuss the references

applied against the claims, explaining how the claims avoid the references or distinguish from

them.

Conclusion

6.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Steven HD Nguyen whose telephone number is (703) 308-8848.

The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Huy D Vu can be reached on (703) 308-6602. The fax phone number for the

organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 305-4700.

Steven HD Nguyen
Primary Examiner
Art Unit 2665
October 14, 2003